

KONOZENKO, Ivan Dmitriyevich, doktor tekhn.nauk; PASICHNIK, L.L., kand.
fiz.-matem.nauk, otv.red.; VYADRO, Sh.Ya., red.; ZELENKOVA, Ye.F.,
tekhn.red.

[Atomic sources of electric current] Atomni dzhherela strumu.
Kyiv, 1961. 33 p. (Tovarystvo dlia poshyrennia politychnykh i
naukovykh znan' Ukrain's'koi RSR. Ser.6, no.18).

(MIRA 15:2)

(Atomic power plants) (Thermoelectricity)

MAYEVSKIY, O.A., dots., kand. tekhn. nauk; SVECHNIKOV, S.V., kand. tekhn. nauk, dots., otv. red.; TETEL'BAUM, Ya.I., kand. tekhn. nauk, dots., otv. red.; VIADRO, Sh.Ya., red.; MATVIICHUK, A.A., tekhn. red.

[Electronics in technology and automatic control] Elektronika v tekhnologii i avtomatike. Kiev, 1961. 40 p. (Obshchestvo po rasprostraneniuiu politicheskikh i nauchnykh znanii Ukrainskoi SSR, Ser.7, no.7) (MIRA 14:11)

(Automatic control) (Electronics)

VYADRO, Sh. (g.Chernigov)

With the trademark "Ukraine." Nauka i zhyttia 11 no. 4:25-27 Ap '61.
(MIRA 14:5)

(Chernigov—Piano makers)

S/124/62/000/007/017/027
D234/D308

AUTHORS: Balabanova, V. N. and Vyadrov, G. I.

TITLE: Methods of introducing reagents into clouds

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 7, 1962, 103, abstract 7B690 (V sb. Fiz. oblakov i osadkov., v.2 (5), M., AN SSSR, 1961, 175-179)

TEXT: The authors consider various methods of introducing silver iodide into supercooled liquid drop clouds with the purpose of artificial nucleation of droplets. Natural convective streams, balloons and aircraft are recommended for this purpose. In the first case the sublimation of silver iodide was effected by means of aircraft heating lamps using mixtures of silver iodide with red phosphorous or with gunpowder as the active material. Balloons carried nitrocellulose film coated with silver iodide, which were lifted to the required height on a smouldering cord. Specially designed smoke boxes were ejected from aircraft. [Abstracter's note: Complete translation.]

Card 1/1

VIADRASHKA, V.F., kand.med.nauk

The regimen of nutrition. Rab.i sial. 36 no.6:23 Je '60.
(MIRA 13:7)

(Children--Nutrition)

VYADRO, M. D. Cand Med Sci -- (diss) "Experimental Traumatic
Shock ~~EXPERIENCE~~ ⁱⁿ Animals ^{under} ~~in the~~ Conditions of ~~a~~ Highly
Rarefied Atmosphere (Course, Outcome ~~AND~~ and Some Counter-Measures)." ^{under}
Mos, 1957. 15 pp 21 cm. (Military Faculty ~~in~~ the Central Inst for
the Advanced Training of Physicians), 200 copies (KL, 17-57, 99)

- 63 -

VYADRO, M.D., podpolkovnik meditsinskoy sluzhby, kand.med.nauk; PANFILOV,
A.S., podpolkovnik meditsinskoy sluzhby.

Decompression disorders in aviators in flight. Voen.-med. zhur.
no. 1:62-65 Ja '60. (MIRA 14:2)
(DECOMPRESSION SICKNESS) (AVIATION MEDICINE)

VYADRO, M.D., podpolkovnik med. sluzhby

~~SECRET~~ Experimental traumatic shock in animals in a rarified atmosphere.

Voen.med.shur. no.3:93 Mr '57.

(MIRA 11:3)

(SHOCK) (ALTITUDE, INFLUENCE OF)

USSR/Human and Animal Physiology. Respiration.

T

Abstr Jour: Ref Zhur-Biol., No 20, 1958, 93287.

Author : Vyadro, M.D.

Inst

Title : The Problem of Pathogenesis and Expert Evaluation of
Hypoxic Collapse in Pilots.

Orig Pub: Voen. med. zh., 1958, No 3, 60-64.

Abstract: No abstract.

Card : 1/1

64

VYADRO, Sh.

Propagandist of the most progressive science ("A.M.Gor'kii as
the propagandist of science" by M.IUnovych. Reviewed by
Sh.Viadro). Nauka i zhyttia 6 no.9:39 8 '56.
(MIRA 13:5)

(Gor'kii, Maksim, 1868-1936)
(Literature and science) (IUnovych, M.)

VYADRO, Sh.

This is a machine (Machines, their past, present, and future."
Reviewed by Sh.Viadro). Znan. ta pratsia no.9:31 S '60.
(MIRA 13:9)

(Machinery)

VIADRO, Sh.

It is made by automatic machines. Nauka i zhyttia 9 no.9:60-61
S '59. (MIRA 13:1)

(Automation) (Motion pictures in industry)

AL'TERZON, Grigoriy Semenovich [Al'terzon, H.S.], kand. khim. nauk; BULAN-
ZHE, I.M., otv. red.; VYADRO, Sh.Ya., red.; MATVIIKHUK, O.A., tekhn.
red.

[Using chemical processes for increasing the strength and wear
resistance of metals] Iak khimiia pidvyshchuie mitnist' i zno-
sostiikist' metalu. Kyiv, 1961. 15 p. (Tovarystvo dlia poshyren-
nia politychnykh i naukovykh znan' Ukraini'koi RSR. Ser.6, no.10-b)
(MIRA 14:9)

(Metals--Hardening)

(Case hardening)

BALABANOVA, V.N.; VYADROV, G.I.

Methods of introducing reagents into clouds in order to make
them. Trudy Vysokogor. geofiz. inst. AN SSSR 2:175-179 '61.
(MIRA 14:12)

(Weather control) (Silver iodide)

362144

S/169/62/000/003/031/098
D228/D301

3,5910

AUTHORS: Balabanova, V. N. and Vyadrov, G. I.

TITLE: Methods of introducing reagents into clouds for influencing purposes

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 73, abstract 3B521 (V sb. Fiz. oblakov i osadkov, v. 2 (5), M., AN SSSR, 1961, 175-179)

TEXT: Ascending currents were used to introduce crystallization nuclei (the product of AgI sublimation) into convective clouds; this permitted the direct generation of aerosol at the ground surface. The presence of ascending currents was established by the movement of smoke from smoke boxes and by the movement of compensated pilot balloons. The method's productivity is governed by the required reagent expenditure (30 - 50 kg) and by the limited time (1 - 2 hours) of the ascending current's existence. It is recommended that a mixture of AgI with red phosphorous should be used as the combustion mixture. Special cartridges, started by a mixture of

Gard 1/2

S/169/62/000/003/031/098
D228/D301

Methods of introducing ...

AgI, KNO_3 , Al (powder), Mg (powder), and BaO and supplied to the cloud by means of aircraft or pilot balloons, were designed in order to hit the cloud more reliably with the reagent. The appliances for ejecting the cartridges are described. Tests in 1957 - 1958 disclosed the existence of the crystallizing action of silver iodide, dispersed by means of such cartridges. [Abstracter's note: Complete translation.]

Card 2/2

VIAGIS, Yu.K. [Vagys, F.]; BODNEVAS, A.I.; MATULIS, Yu.Yu. [Matulis, J.]

Certain properties of the electrolytic deposits of nickel and cobalt obtained in the presence of thiourea. Zashch. met. 1 no. 5:525-529 (MIRA 18:9) S-O '65.

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

VYAGIS, Yu.K. [Vegys, J.]; BODNEVAS, A.I.

Interaction of thiourea with a nickel cathode as dependent on
the conditions of electrolysis. Trudy AN Lit. SSR. Ser. B no.3:
3-13 '64. (MIRA 18:5)

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

17(3,10)

AUTHOR:

SOV/177-58-3-11/20
Vyadro, M.D., Colonel of Medical Service, Candidate of
Medical Sciences

TITLE:

On the Problem of Pathogenesis and the Expert Evaluation of Collapse Among Aircrews

PERIODICAL:

Voyenno-Meditsinskiy Zhurnal, 1958, Nr 3, pp 60-64
(USSR)

ABSTRACT:

The problem of poor resistance by individual aircrews to moderate degrees of oxygen starvation is of great practical significance. Collapses in the altitude chamber are accompanied by loss of arterial pressure, stoppage of the pulse, increased sweating, pallor etc, and may lead to loss of consciousness. A hot bath, a shower, long exposure to the sun, the drinking of spirits or lack of sleep may bring about a collapse but if avoided, the aircrew is absolutely fit. At the same time there are healthy individuals who constantly for several years, show a reduced resistance to oxygen starvation. Such men should be transferred to transport duties or light aviation. Observations made by ✓

Card 1/3

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SOV/177-58-3-14/29

On the Problem of Pathogenesis and the Expert Evaluation of Collapse Among Aircrews

the author lead him to support the conclusions of A. P. Apollonov and D.I. Ivanov in 1947. With the former type of aircrew, research was based on the assumption that the cause of collapse in the inertia of the regulatory mechanism, and that time to 5,000 meters (5 min) is not enough for adaption of the compensatory mechanism. Brief inhalation of oxygen assists the swift mobilization of the compensatory mechanisms, and the airman feels well again. A paragraph is devoted to the methodology used for these experiments, and a full page describes two individual case histories, in which the aircrew concerned, after study and treatment, were found fit for unrestricted flying, though in one case early inhalation of oxygen is recommended. An understanding of the pathogenesis of collapse and of the mechanism causing it facilitates expert evaluation of crews and permits errors in passing crews for flying duties to be avoided. Collapses of the first type are not considered an obstacle to flying ✓

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SOV/177-58-3-14/29

On the Problem of Pathogenesis and the Expert Evaluation of Collapse Among Aircrews

duties since the early use of oxygen is a reliable way of avoiding collapse in flight even when the airman is subjected to moderate degrees of oxygen starvation. The second type of collapse, which is caused by restricted functional potential of the vegetative vessels, is virtually incurable. Any untoward incident in flight, causing oxygen shortage, is a great danger to this variety of aviator. Consequently men suffering from the latter kind of collapse should be passed as fit only for transport duties and light aviation.

Card 3/3

VIADRO, Sh.

Toward the apex of science ("Science and youth." Reviewed by
Sh. Viadro). Znan. ta pratsia no.4:18-19 Ap '59.

(MIRA 12:10)

(Research) (Youth)

VYATSK, B.I.; KUDACHAN, A.I.; MATULIS, Yu.Yu. [Matulis, J.]

Description of the effect of thiourea in the electrodeposition of nickel. Zhukovskiy. 1 no. 2:359-366 JZ-ig '65.

(MIRA 18:2)

2. Institut Khimii i Khimicheskoy Tekhnologii AN Litovskoy SSR.

TEST AND PROPERTIES INDEX																									
TEST AND PROPERTIES INDEX													TEST AND PROPERTIES INDEX												
<p>CR</p> <p>The electrolysis of potassium tigliate. A. D. Petrov and D. A. Vyakhirev. <i>J. Gen. Chem.</i> (U. S. S. R.) 9, 513-15(1939).—When K tigliate is electrolyzed at c. d. 0.07 amp. per sq. cm., 14% of the work of the current goes to form $\text{MeCH:CMcCOOCMe:CHMe}$, 9.0% to form dimethylacetylene, 2.4% for O_2, and the rest for decomp. the salt to CO_2 and H_2O. H. M. Leicester</p> <p>4</p> <p>Lab. of the Chair of Org. Chem., Leningrad State U.</p> <p>ASB-52A METALLURGICAL LITERATURE CLASSIFICATION</p>																									

C A		PROCESSES AND PROPERTIES INDEX	
<p>Substitutes for platinum in the electroanalysis of zinc-plating baths. D. A. Vyakhirev and A. G. Ermolina. <i>Zavodskaya Lab.</i> 9, 1205-8(1940).—The Pt anode can be substituted by an anode of Fe wire in the detn. by electrolysis of Zn in cyanide and acid Zn baths. A brass gauze proved satisfactory as a cathode. The time for a detn. can be reduced to 30 min. by mixing the soln. with a rotating Fe spiral anode and with a current of 2 amp. at ordinary temp. with a Zn content of about 0.35 g. in the electrolyte sample. At a temp. of about 60-70°, current of 10 amp. and a Zn content in the soln. of up to 0.35 g. the Zn can be deposited in 5 min. B. Z. K.</p>			
<p>ASB-35 A METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>FROM DIVISION</p>		<p>SECTION</p>	
<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>		<p>101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200</p>	

1ST AND 2ND COVERS		PROCESSES AND PROPERTIES INDEX	
<p><i>M</i></p> <p>*Determination, by the Polarographic Method, of Zinc in Nickel Sulphate and in Electrolytes Used for Nickel Plating. D. A. Vyshinsky (Zavod. Lab., 1945, 11, 641-644; C. Abstr., 1946, 40, 2759).— [In Russian]. Dissolve 25 g. of $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ in 100 ml. of distilled water (or take 100 ml. of Ni electrolyte), and pass H_2S for 1-3 hr. through the solution (pH 5-6); let the sulphide settle for 3 hr., filter, and wash with H_2S until no Ni is present in the wash water (dimethylglyoxime test). Treat the washed precipitate with 25 ml. of 2N-HCl, and wash the insoluble portion of the precipitate on the filter 2-3 times with small portions of hot water. Evaporate the filtrate, together with the wash waters, to a 10 ml. and neutralize exactly with NH_4OH. Transfer the neutral solution to a 50 ml. measuring flask, add 5 ml. of the mixture: $\text{CH}_3\text{COONH}_4$, 0.1 mol.; KCN 0.25 mol., dilute with water to the mark, mix carefully, and make a polarogram with 4-5 ml. of the solution in the electrolyzer, using a galvanometer with the same sensitivity (1:30-1:100) as has been used to construct the calibration curve with Zn^{2+} solutions. Determine the Zn content in NiSO_4 by the equation $\text{Zn} = (C \times 65.4 \times 50 \times 100)/1000 \times 25 = 13.08 C$ in %, and for Ni electrolytes by the equation $\text{Zn} = (C \times 65.4 \times 50 \times 1000)/1000 \times 100 = 32.7 C$ g./l. (C is the concentration of Zn in the solution in g.-ions/l.) The polarographic method is more accurate than the gravimetric method and reduces the time of the determination. The disadvantage of the method is that the separation of Zn from Ni by H_2S requires considerably more time than the polarographic determination.</p>		<p><i>11</i></p>	
		<p>458.55.8 DETALLURGICAL LITERATURE CLASSIFICATION</p>	

7

C

Polarographic control of galvanic bath electrolytes and of galvanic metal coating. H. A. Sublette et al. (Univ. of Kansas Lab. 12, 1960, 1010). Abstract to flask containing the electrolyte, place the flask on a sand bath in an inclined position, decomp. the cyanide complexes of Cu and Zn, cool under running water, dil. with 2.5 ml. of water, neutralize with NH_4OH (Cu and Zn are transformed completely into NH_4 complexes), add 1 ml. freshly prepd. 1% gelatin soln. and 25% NH_4OH to the mark, mix thoroughly, let stand, decant the liquid or filter it through a dry filter into the electrolyzer, and analyze the soln. polarographically. The contents of Cu and Zn in the electrolyte are detd. by means of calibration curves. The relative exptl. error of the detns. was 2-3%. Brass plate is analyzed in a similar manner, except the preliminary prepn. for analysis. Suspend the plated article from a stand by means of a piece of Fe wire, connect it to the pos. electrode of a d.c., using a Pt spiral as the cathode, immerse both electrodes in a mist. consisting of 30 ml. of 25% NH_4OH and 2 ml. of satd. NH_4NO_3 soln., and electrolyze for 10-15 min. with a c.d. of 2-3 amp./sq. dm. After the removal of the coating, remove the electrodes from the soln. (if a rod deposit remains on the Pt cathode, dissolve it by keeping the cathod in the electrolyte for a short time, mixing the soln. with a rod), transfer the soln. to the electrolyzer, and analyze it polarographically. The relative exptl. error is 4-6%. Cf. C.I. 40, 2756.

W. R. Henn

ASS. SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM DIVISION

RELATIONS:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

4

Polarographic control of electrolyte baths. III. D. A. Vyakhirev. *Zashchita Lab.* 15, 1107-71(1947); -cf. C.A. 40, 70771.- Titration of solns. contg. much sulfate (from 0.1 N upward) is best done with Pb electrodes, instead of Hg; this can be applied to Ni-plating solns. The error of polarographic detn. of pure Na_2SO_4 solns. is within 1.2%; in electrolytic baths it may reach 10%, with increase most apparent for solns. which require large amts. of $\text{Pb}(\text{NO}_3)_2$ titrating soln. The cathode is a glass tube with a Pb plug at the lower end connected by a wire to the top binding post; the anode is a Pb wire helix, located around the cathode. The electrode pair is in the usual polarograph circuit, with a switch used for connection to the conventional calomel electrode for estn. of electrode potentials. Na_2SO_4 solns. are titrated at cathode potentials -0.7 to -1.2 v.; the electrolyte baths at -0.7 v. vs. satd. calomel electrode. The best procedure devised was: 4-5 ml. bath electrolyte is dild. to 50 ml. by water or 30% alc., placed in the titration vessel connected to the polarograph, 0.2 v. potential is applied, and titration is conducted in the usual polarographic manner by Pb nitrate. The end point is detd. graphically as the point of intersection of tangents to the 2 main portions of the curve. The diffusion current I_d established within 20-30 sec. after each addn. (much slower than with Hg-drop cathode).
G. M. Kosolapoff

ASH-51A METALLURGICAL LITERATURE CLASSIFICATION

B

16

Concerning the Apparatus for Polarographic Analysis.
(In Russian.) D. A. Vyakhirev. Zavodskaya Labora-
toriia (Factory Laboratory). v. 13, July 1948, p.
527-538.

Various types of polarographs are discussed, and
the accuracy of Russian domestic models is upheld.
The article is illustrated by diagrams, circuit
diagrams, and pictures. 17 ref.

A.A.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

GROUP #2

SERIES NIT ONY ONE

RELATIONS

100% DOMINANT

CLASSIFY ONE ONLY SEE

VYAKHIREV, D. A.

PA 16/49T30

Sep 48

USSR/Electricity
Potentiometers
Instruments, Measuring

"Tube-Equipped Potentiometer," A. A. Ryabov, D. A.
Vyakhirev, I. B. Rabinovich, 2½ pp

"Zavod Lab" Vol XIV, No 2

Describes tube potentiometer for measuring EMF of galvanic circuits. Includes two circuit diagrams and one photograph. Instrument gives reliable steady readings during continuous operation, and is not affected by sudden voltage changes.

16/49T30

CA

pH meter for field use... D. A. Vyukhtin (Gor'ka
State Univ., Kharkov). *Zashchita* Lab. 18, 1376 H
(1946).—Description and illustrations of a portable bat-
tery-type pH meter. O. M. Kozlov

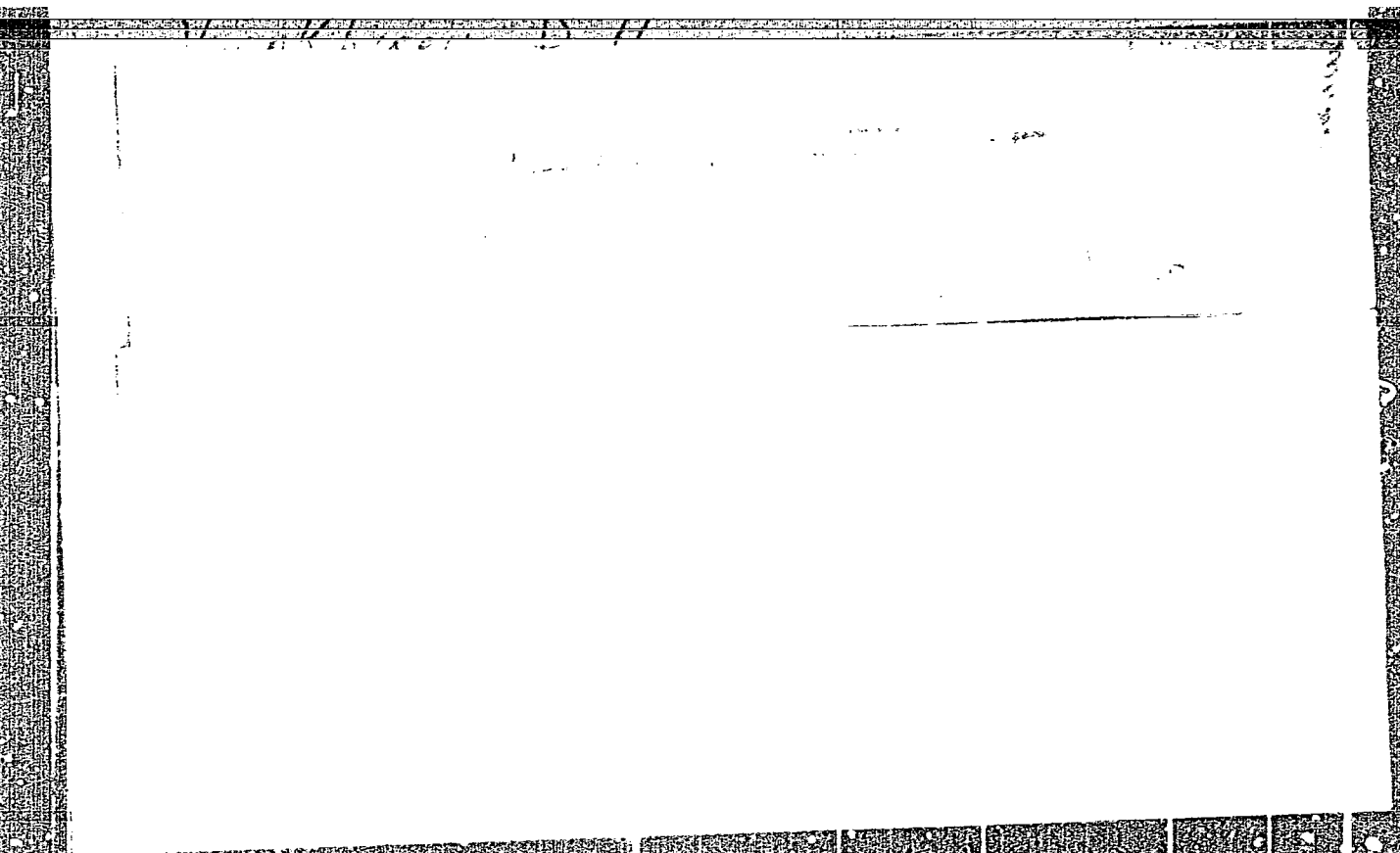
Potentiometric Determination of Chloride Ion Without Use of Silver Nitrate. (In Russian.) D. A. Nyakhirev and S. A. Guglina. *Zavodskaya Laboratoriya* (Factory Laboratory), v. 15, Dec. 1949, p. 1426-1430. Describes a method using a solution of $Hg(NO_3)_2$.

CA

An apparatus for correction of pH of plating baths.
D. A. Vyakhirev (Vor'zh State Univ.). Zvezdnyy Lab.
No. 625-64 (1958).—A portable immersion-type pH meter
with a AgCl-Sb electrode pair; photos and diagrams, and
directions for use in detn. of pH of electroplating bath-
(principally Ni). G. M. Kurodyan

"APPROVED FOR RELEASE: 09/01/2001

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APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961320006-3"

VIKHNIN, D. A.

64

Separation of a mixture of simplest hydrocarbons by the method of chromatography. B. V. Al'vazov and D. A. Vyakhirev. *Zhur. Priklad. Khim.* 26, 905-11(1963).—A mixt. of C_1H_4 , C_2H_6 , C_3H_8 , C_4H_{10} , and 1-butene was sepd. on silica gel (0.5-0.8 mm. in diam.) placed in a tube provided with sectional heating elements. The mixt. was deposited on the adsorbent, and the components were desorbed selectively in a stream of dry air by variation of the location of heating. The results are given graphically. The order of desorption is as given above. G. M. K.

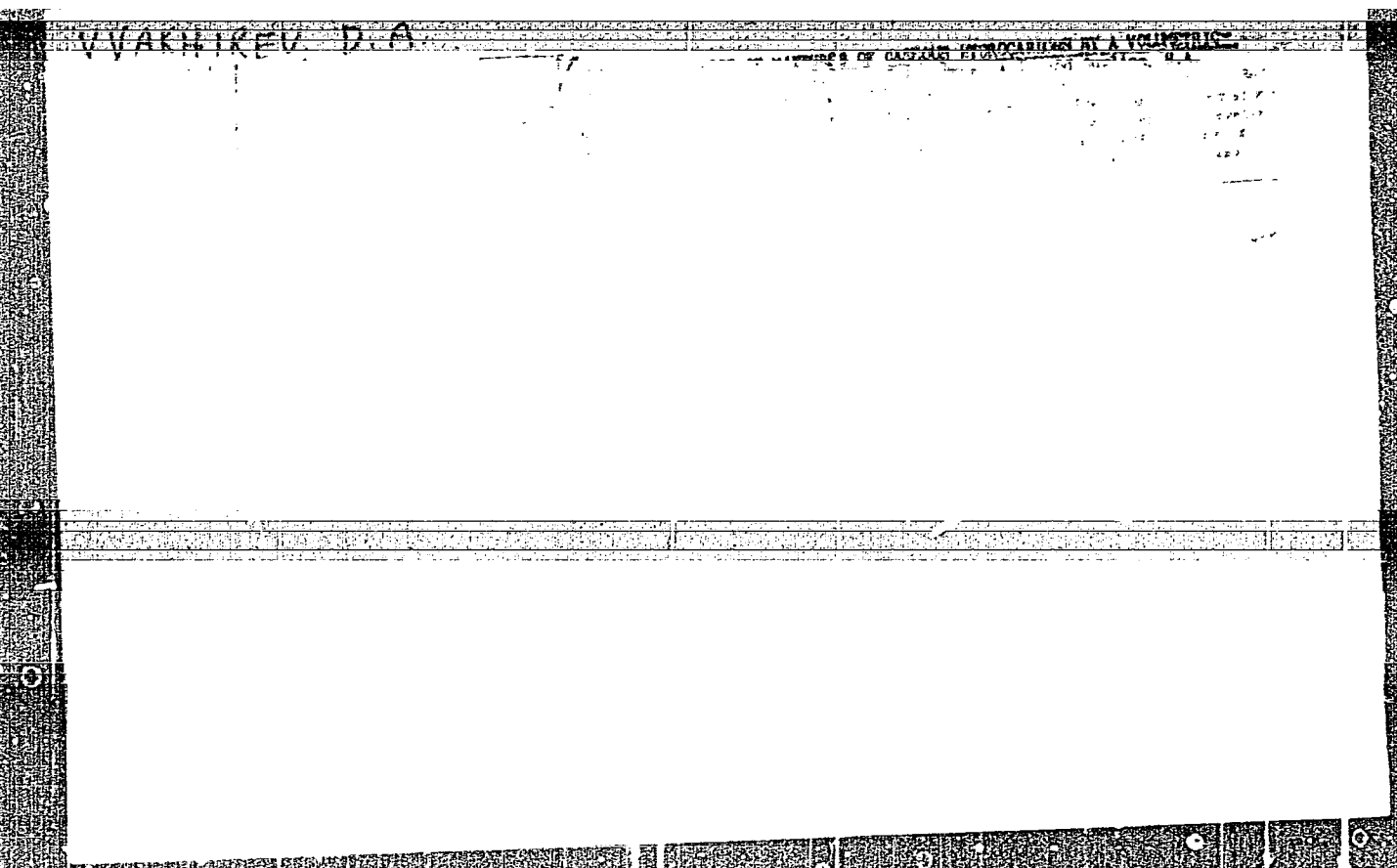
ME

VYAKHIREV, D. A.

✓ Volumetric-chromatographic method of gas analysis. D. A. Vyakhirev, A. I. Bruk, and B. A. Gogina (State Univ., Tomsk). *Dokl. Akad. Nauk S.S.R.* 90, 677-6 (1953).—A method of gas analysis is based on the exptl. fact that desorption of a mixture of C_2H_6 and C_3H_8 (78.8%) + C_4H_{10} (21.2%) is possible. The app. consisted of a water-jacketed adsorption-desorption column and a gas buret. The column was connected so that the latter could be placed in series during desorption. As a carrier gas, N_2 was used. The vol. of C_2H_6 and C_3H_8 is measured through the column and the exit gases are absorbed by KMnO_4 in the buret. The vol. of gases not absorbed by the KMnO_4 is accumulated. The plot q vs. v is a continuous curve with a series of vertical sections q_1, q_2, \dots , corresponding to the vol. of a constituent in the gas mixt., and horizontal sections v_1, v_2, \dots . The distances between v_1 and v_2 , etc., indicate the completeness of the selective desorption. This is also obtained by a c vs. v curve, where c equals the percentage of each constituent in the C_2H_6 stream, is derived from the q vs. v curve since $c = dq/dv$. I. Benzonitz

62

Sci. Res. Inst. Chem., Gorkiy State U. (fr Vyakhirev)



VYAKHIREV, D.A.; BRUK, A.I.; GUOLINA, S.A.

Volumetric-chromatographic analysis of gaseous-phase hydrocarbon mixtures. Trudy Khim.anal.khim. 6:137-145 '55. (MIRA 9:5)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete.
(Chromatographic analysis) (Hydrocarbons)

VYAKHIREV, D. A.

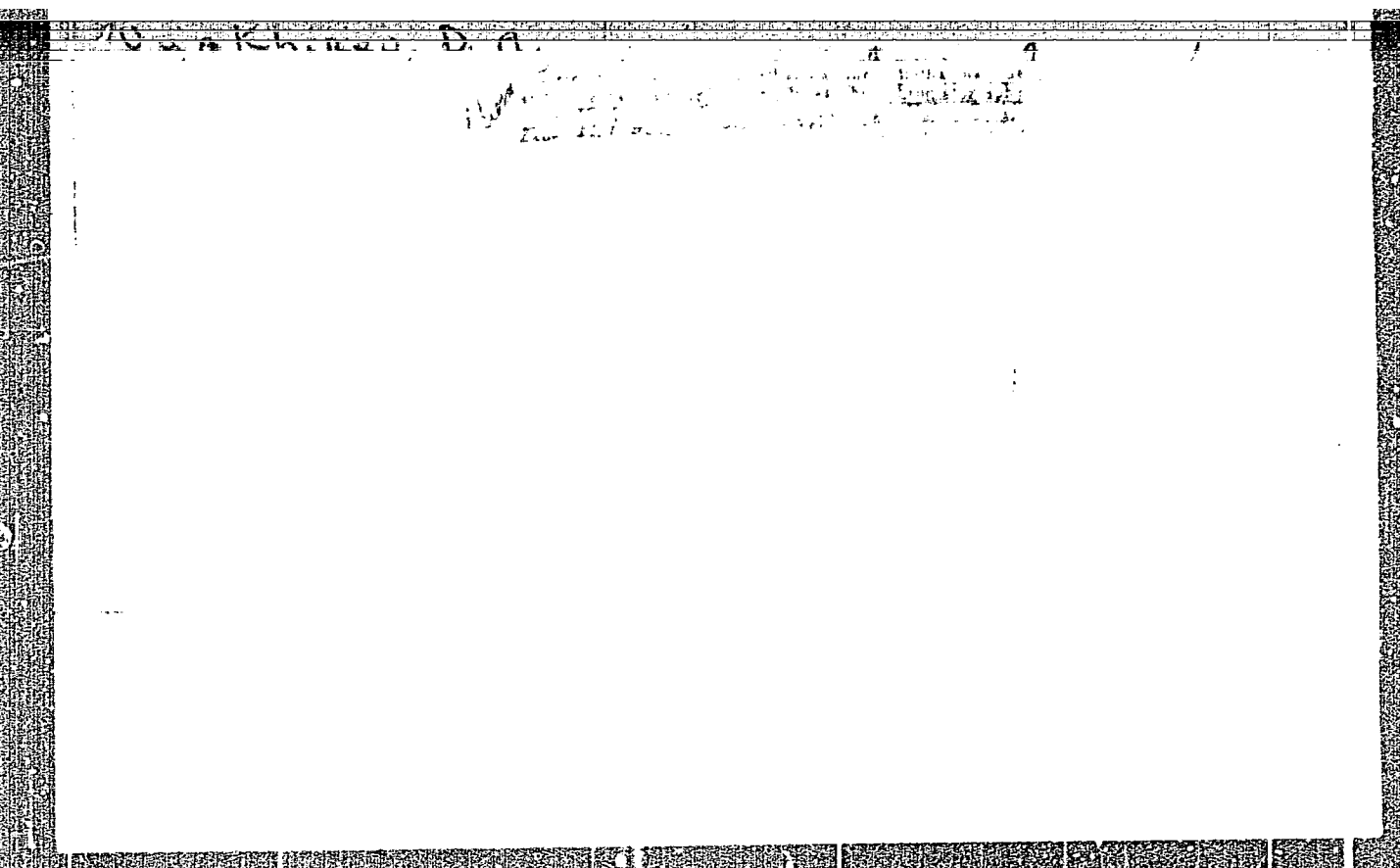
Precipitation paper chromatography of cations. D. A. Vyakhirev, *Trudy Khim. Anal.* 1970, No. 1, 11-12. (Russian) 11

The method is described for the separation of cations on precipitation paper. The cations studied are: NH_4^+ , Ca^{2+} , Mg^{2+} , Ba^{2+} , Sr^{2+} , Al^{3+} , Cr^{3+} , Fe^{3+} , Mn^{2+} , Zn^{2+} , Ni^{2+} , Co^{2+} , Ag^+ , Hg^{2+} , Pb^{2+} , Hg^{2+} , Bi^{3+} , Cu^{2+} , Cd^{2+} , Sb^{3+} , and Se^{4+} . The cations were studied individually, in pairs, and in groups. The chromatograms were developed with a suitable agent and the results were compared with those obtained by other methods. The reagents used were: NaBr , KI , Na_2S , Na_2SO_4 , Na_2AsO_4 , Na_2HPO_4 , Na_2SiO_3 , $\text{K}_2\text{Cr}_2\text{O}_7$, $\text{K}_2\text{Fe(CN)}_6$, K_2FeO_4 , S , $\text{NH}_4\text{C}_2\text{O}_4$, urea, thiocrea, 9-quindinol, dimethylglyoxime, rubenic acid, and alizarin. A drop of the sample solution was placed on a strip of the precipitation paper and the spot which resulted was washed one or more times with the appropriate solvent and then developed with a suitable agent (control zone, rubenic acid, alizarin, dimethylglyoxime, diphenylcarbazide, and various other org. reagents). The experimental results are given in tabular form showing the pptg. agent, solvent, developer, characteristic color of the ppt., and any unusual features of the results. This method is proposed as a suitable method of qualitative analysis.

I. Roy, et al.

"APPROVED FOR RELEASE: 09/01/2001

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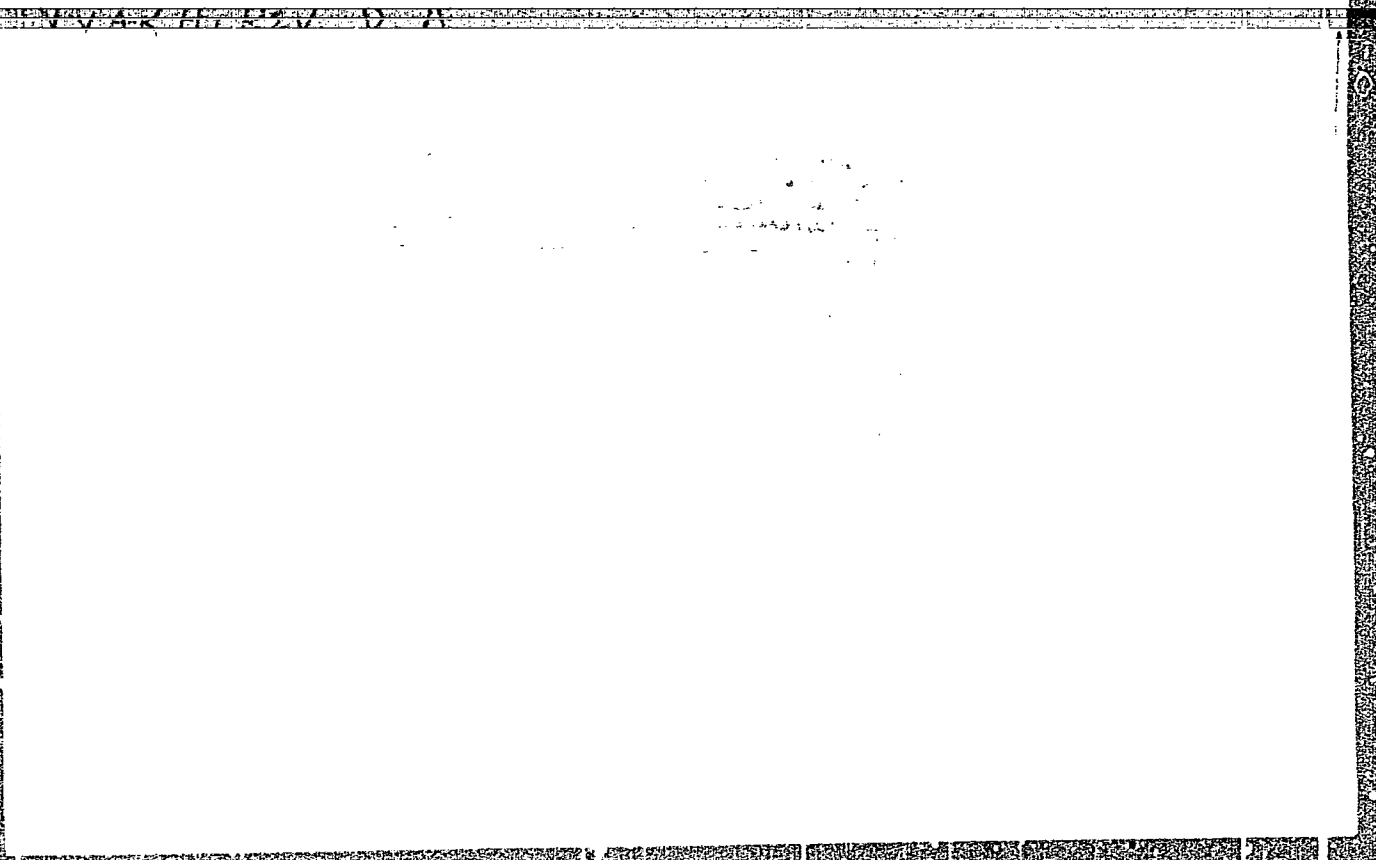


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35491

SOV/20-129-1-38/64

5(4) 5.5600 (A)

AUTHORS: Vyakhirev, D. A., Komissarov, P. F.

TITLE: Vacuum Gas Chromatography

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 1, pp 138-140 (USSR)

ABSTRACT: The pressure drop required for the gas that is to be analyzed chromatographically to pass through the adsorption column is generally produced by raising the pressure of the carrier gas at the entrance to the column. In references 1 and 2, however, the production of a vacuum at the outlet of the adsorption column is recommended without giving data on the influence of pressure inside the column on both the height and width of the peak of the discharge curve and on the volume adsorbed. The authors investigated this influence by means of the apparatus shown in figure 1. Pressures applied in the tests varied from 176 to 768 torr, and were kept constant inside the column throughout the test. Reduced pressure resulted in a shorter discharge period, higher peak and unchanged volume (Fig 2-4). A directly proportional dependence of the discharge period on the pressure inside the column is derived. A theoretically satis-

Card 1/2

66491

Vacuum Gas Chromatography

SOV/20-129-1-38/64

factory explanation for the unchanging width of the discharge curve cannot yet be given owing to the scarcity of experimental data. However, the ratio of the diffusion coefficient to the gas rate is suspected to be constant. L. G. Levkov took part in the first experiments. There are 4 figures and 9 references, 3 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at the Gor'kiy State University imeni N. I. Lobachevskiy)

PRESENTED: June 16, 1959, by M. M. Dubinin, Academician

SUBMITTED: June 15, 1959

Card 2/2

L 26723-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AR6011876

SOURCE CODE: UR/0081/65/000/016/S030/S031

AUTHOR: Vyakhirev, D. A.; Zabotin, K. P.; Zuyeva, Ye. M.; Troitskiy, B. B.;
Vyshinskiy, N. N.; Nikolayeva, M. V.; Pogrebnyaya, T. I.; Fomicheva, L. V.

TITLE: Gas chromatography study of impurities in methylmethacrylate and analysis of their effect on the process of polymerization

SOURCE: Ref. zh. Khimiya, Abs. 16S214

TOPIC TAGS: methanol, methylmethacrylate, glycol, polymerization rate, molecular weight, monomer

ABSTRACT: With the use of the gas chromatography method on an INZ-600 brick with a selective liquid phase of polyethylene glycol 1000, it has been determined that the basic admixtures in industrial methylmethacrylate are dimethyl ether, methylformate, methylpropionate, methanol, methyl-β-methoxypropionate, and three unidentified substances. An investigation was made of the effect of supplementing the detected admixtures to methylmethacrylate on the polymerization rate and the molecular weight of the polymer obtained by standard methods in emulsion at 40C. It was shown that up to 2% methanol increases the polymerization rate and the molecular weight. Above 1% methylformate decreases the molecular weight and above 3% decreases the polymerization rate. Methylpropionate sharply decreases the molecular weight and the polymerization rate at a concentration of 0.5 to 1%. Acetaldehyde has no effect on the

Card 1/2

L 26723-66

ACC NR: AR6011876

polymerization rate, but it decreases the molecular weight. The addition of polymethylmethacrylate to a monomer causes an increase in the polymerization rate and a decrease in the molecular weight. Hydroquinone, added to the monomer as the inhibitor, causes a sharp drop of the polymerization rate and the molecular weight. V. Kopylov.
[Translation of abstract.] (HT)

SUB CODE: 11,07/ SUBM DATE: none/

Card 2/2 *RV*

BRUK, A.I.; VINOGRADOVA, L.M.; VYAKHIREV, D.A.

Theoretical calculation of certain parameters in gas-chromatographic separation. Trudy po khim.i khim.tekh. no.1:99-101 '63. (MIRA 17:12)

KOMISSAROV, P.F.; VOROB'YEV, Yu.V.; VYAKHIREV, D.A.

Effect of pressure on the effectiveness and sensitivity of chromatographic analysis in the gaseous phase. Trudy po khim.i khim.tekh.
no.1:102-105 '63. (MIRA 17:12)

VYAKHIREV, D.A.; MAL'KOVA, G.Ya.; VOROB'YEV, Yu.V.; KURYGIN, V.A.; TOLEKHOVA,
Z.D.

Gas-liquid chromatography of impurities in acetone. Neftekhimiya
2 no.6:928-933 II-D '68. (MIRA 17:10)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudar-
stvennom universitete.

REBINDER, P.A., akademik; VYAKHIREV, D.A., doktor khimich. nauk

"Gas chromatography" by A.A.Zhukhovitskii, M.N.Turkel'taub.
Reviewed by P.A.Rebinder and D.A.Viakhirev. Zav.lab. 29 no.8:
1023 '63. (MIRA 16:9)

(Gas chromatography)
(Zhukhovitskii, A.A.)
(Turkel'taub, M.N.)

KOMISSAROV, P. F.; VYAKHIREV, D. A.

Vacuum gas-chromatographic apparatus. Zav. lab. 28 no.12:
1504-1506 '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete.

(Gas chromatography)

VAKHIREV, D.A.

1971-1972

VYAKHIREV, D.A.; KOMISSAROV, P.F.

Investigation of certain types of katharometers for gas chromatography. Zav.lab. 28 no.8:1007-1010 '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete.
(Gas chromatography)

YAKHIREV, D.A.; CHERNYAYEV, N.P.; BRUK, A.I. (Gor'kiy)

Effect of experimental parameters on the chromatographic separation of substances in the gaseous and vapor phases. Part 3: Effect of the structure of silica gel on the separation of gaseous hydrocarbons by volumetric chromatography. Zhur.fiz.khim. 34 no.5:1096-1103 (MIRA 13:7)
My '60.

1. Gor'fovskiy gosudarstvennyy universitet im. N.I.Lobachevskogo.
(Hydrocarbons) (Gas chromatography)

VYAKHIREV, D. A., Doc Chem Sci -- (diss) "Chromatography in the gas phase." Saratov, 1960. 38 pp; (Ministry of Higher Education RSFSR, Saratov State Univ im N. G. Chernyshevskiy); 300 copies; price not given; list of author's works on page 38 (18 entries); (KL, 26-60, 131)

S/076/60/034/05/26/038
B010/B003

5.5600(A)

AUTHORS: Vyakhirev, D. A., Chernyayev, N. P., Bruk, A. I.

TITLE: Effect of the Experimental Parameters on the Chromatographic Separation of Substances in the Gaseous and Vapor Phases. III. Effect of the Structure of Silica Gel on the Separation of Gaseous Hydrocarbons by Volumetric Chromatography

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 5, pp. 1096-1103

TEXT: The authors investigated the effect of the structure of silica gel on the separation of gaseous hydrocarbons, thus evaluating the efficiency of separation by the difference in the adsorption heats of the components and the criteria of separation K_1 and K_2 (Ref. 5). A pyrolytic gas (10% H_2 , 40% CH_4 , 12% C_2H_6 , 20% C_2H_4 , 2% C_3H_8 , 12% C_3H_6 , 2% C_4H_{10} , and 3% C_4H_8) was investigated, however, only the separation of the pair $C_2H_6 - C_2H_4$ was examined. Z. P. Kuznetsova, Laboratory

Card 1/3

80735

Effect of the Experimental Parameters on the Chromatographic Separation of Substances in the Gaseous and Vapor Phases. III. Effect of the Structure of Silica Gel on the Separation of Gaseous Hydrocarbons by Volumetric Chromatography

S/076/60/034/05/26/038
B010/B003

Assistant, participated in the experiments. A device described in Ref. 6 was used, which renders chromathermographic and elution tests possible. Two series of silica gel served as samples; one was prepared by I. Ye. Neymark's method, and the other was treated with hydrochloric acid and aftertreated with 0.1 N of KOH. In addition to the latter MCM (MSM) silica gels, also non-treated MCK (MSK) and MCM (MSM) silica-gel samples were examined. The authors determined the structural characteristics (Tables 1,2) by a method of B. A. Lipkind. The authors found that a better separation can be obtained by increasing the specific surface and reducing the pore diameter of the silica gel. A comparison of the adsorption isothermal line of butane (Figs. 1,2) and the adsorption coefficients G derived therefrom, the maximum adsorption z , and the ratio G/z reveals that less convex adsorption isothermal lines were obtained on MCM(MSM) silica gel treated with HCl and aftertreated

Card 2/3

60735

Effect of the Experimental Parameters on the Chromatographic Separation of Substances in the Gaseous and Vapor Phases. III. Effect of the Structure of Silica Gel on the Separation of Gaseous Hydrocarbons by Volumetric Chromatography

S/076/60/034/05/26/038
B010/B003

with 0.1 N of KOH. This treatment lowers the adsorptive capacity of silica gel (Table 3) since the pore diameter is enlarged and the specific surface reduced. Thus, the authors succeeded in avoiding a polymerization of unsaturated hydrocarbons (propylene and butylene) which, however, takes place with untreated silica gel. Table 4 lists the values of ΔG and K_1 for ethane and ethylene of the various silica-gel samples. Finally, the authors thank Professor A. A. Zhukhovitskiy for his interest in the present investigation. There are 4 figures, 4 tables, and 10 references: 7 Spviet, 1 German, 1 Czech, and 1 American. ✓

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo (Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: July 22, 1958

Card 3/3

VYAKHIREV, F.V., inzh.

Mechanization of the spreading of liquid nitrogen fertilizers.
Mashinostroenie no.3:109-111 My-Je '64.

(MIRA 17:11)

VYAKHIREV, P.V.

New agricultural machinery. Mashinostroyeniye no. 1:124-126
Ja.F '63. (MIRA 16:7)

(Agricultural machinery)

VYAKHIREV, I.A., inzh.

Investigation of clayey soils as material for hydraulic embankments.
Trudy Gidroproekta 3:191-208 '60. (MIRA 13:7)

1. Otdel inzhenernoy geologii Vsesoyuznogo projektno-izyskatel'skogo i nauchno-issledovatel'skogo instituta "Gidroproyekt" imeni S.Ya.Zhuka.

(Soil mechanics)

VYAKHIREV, V.V.

~~Organizing a student camp for summer work.~~ Biol. v shkole 6:45-47
'58. (MIRA 11:11)

1. Direktor Voznesenskoy sredney shkoly No.19 Labinskogo rayona
Krasnodarskogo kraia.
(Agriculture--Study and teaching)

V'YAKOV, I.Ye., kand.tekhn.nauk

Expand the scientific development of automation problems.
Bum.prom. 37 no.10:3-4 0 '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
tsellyulozno-bumazhnoy promyshlennosti.
(Woodpulp industry--Research)
(Automation)

VYAL', M.

"Solution of Normal Equations by the Method of Successive Approximations"

Sbornik stud. nauch. -issled. rabot Belorusskoy s.-kh. akad., No. 1, 1953, pp 88-98

abs

W-31098, 26 Nov 54

MDIVNISHVILI, O.M.; VYAKHIREV, N.P.

Studying the structure of clay minerals with various degrees of
dispersion. Trudy KIMS no.5:31-37 '63.

(MIPA 18:10)

MERABISHVILI, M.S.; MDIVNISHVILI, O.M.; PANTSULAYA, T.V.; VYAKHIREV, N.P.

Effect of heat treatment on the structure and physicochemical
properties of bentonite clays. Trudy KIMS no.5:39-41 '63.

(MIRA 18:10)

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCESSES AND PROPERTIES INDEX																			
<p>6</p> <p>NATURE OF THE "FORGING CROSS" IN STEEL. V.I. Arkharov, N.V. V'yal and K.A. Malyshov. (Journal of Technical Physics, U.S.S.R., 1948, vol 18, Feb., pp 219-223 (in Russian); (Abstract) Metals Review, 1948, vol 21, Aug., p42). The phenomenon consists of a clearly visible cross-shaped design which appears on the etched surface of specimens which were rotated during forging, between blows of the hammer, to positions at right angles to each other. Attempts are made to explain this phenomenon on the basis of a particular distribution of coarse and fine grains which is thus produced.</p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										HIGH SCHOOL									
<p>100000 000000</p> <p>100000 000000</p>										<p>100000 000000</p> <p>100000 000000</p>									

V'YAL', N. V.

USSR/Metals - Alloy Systems
Bismuth Compounds

May 50

"New Method for Studying Alloys by Samples of Variable Composition," I. I. Kornilov,
N. V. V'yal', Inst of Gen and Inorg Chem, Acad Sci USSR, 3 pp

"Zavod Lab" Vol XVI, No 5

Offers method based on separating compounds of metal systems under action of centrifugal force in process of crystallization. Describes equipment and procedure for obtaining specimen of variable composition using alloy of bismuth with 10% cadmium. Method may be applied only for separating metals of different specific weights.

PA 160T75

V'YAL, N. V.

③ 4
 * Nature of naphthalene-like break in high-speed steel.
 V. D. Sadovskii, K. A. Malyshev, and N. V. V'yal. *Izv. Akad. Nauk S.S.S.R. 20*, 315-320 (1950).—High-speed steel ordinarily contg. W, Cr, and V is usually hardened from 1200 to 1280°. Such steel has a fine-grained structure and a porcelain-like break. If this steel is rehardened from the same temp. there is a sudden growth of crystals, the structure becomes coarse-grained, and the break has the appearance of naphthalene (flaky). The cause of it was studied by hardening samples from 1280°, followed by annealing at 550-800° for 1-10 hrs., and rehardening part of the specimens. The growth of the grain-size and the naphthalene-like break upon rehardening is not caused by residual austenite. The coarse-grained structure is attributed to the fact that the alloying elements from solid soln. at the temp. of the 1st hardening. During the 2nd hardening they have no time to sep. out from the martensite as carbides, and the transformation of the α -soln. into γ comes about without diffusion and the original size of the austenite grains is retained. The further growth of the austenite grains is the result of recrystn. connected with intensive soln. of the carbides as the temp. rises. This recrystn. is referred to as "collective" recrystn.

M. Hosh

MALISHEV, E. A., V'YAL, N. V.

Steel - Heat Treatment

Effect of heating rate in electric heat treatment upon the growth of austenite grains.
Trudy Inst. fiz. met. No. 13, 1951.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

V'YAL, N. V., SADOVSKIY, V. D. and MALYSHEV, K. A.

"Nature of Naphthalene Fracture in High-Speed Steel".

Tr. in-ta Fiziki Metallov Uralsk. Fil. AN SSSR, No 14, pp 35-42, 1954

High-speed steel containing 17-19% W, 4-5% Cr, 1-2% V and 0.7-0.9% C was tested. Naphthalene fracture was studied by metallographic and magnetic methods with resulting clarification of properties of naphthalene fracture in high speed steel and of the orientation rules during transformation of austenite into martensite, as established by G. V. Kurdyumov. The formation of coarse austenite grains at repeated annealing of high-speed steel is a process of mass recrystallization and bound to the high threshold temperature of recrystallization and the kinetics of separation and solution of the carbide phase during heating. (RZhFiz, No 10, 1955)

SO: Sum No 812, 6 Feb 1956

L 45834-66 EWT(1)/EWT(m)/T IJP(c) DS/AT

ACC NR: AP6030586

SOURCE CODE: UR/0413/66/000/016/0071/0071

INVENTOR: V'yalintsyn, V. A. ; Prudnikov, I. A.

ORG: none

TITLE: Accelerated ^Nelectron beam locator. Class 21, No. 184988

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 71

TOPIC TAGS: electron beam, accelerated electron, electron beam position, electron beam locator, locator

ABSTRACT: The proposed device for determining the position of an accelerated electron beam in relation to the central axis of the pickup is based on the use of the secondary emission effect. The device contains an electric measuring unit and metal foil collecting and emission electrodes. The latter are placed in the path of the accelerated electron beam and arranged both in series and in parallel. They are separated by protective electrodes. To facilitate the determination and adjustment of the beam position, the emission electrodes are cut in half in

Card 1/2

UDC: 537.533.8

L 45834-66

ACC NR: AP6030586

mutually perpendicular directions and connected to the electric measuring unit, which compares secondary electron currents transmitted through the halves of the emission electrodes. Orig. art. has: 1 figure. [Translation] [DW]

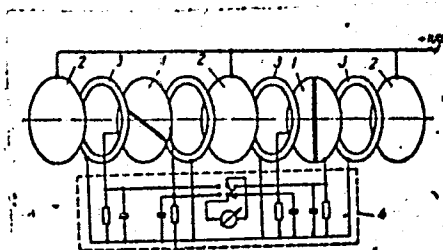


Fig. 1. Accelerated electron beam locator.
1—Emission electrodes; 2—collectors; 3—protective electrodes;
4—electric measuring device

SUB CODE: 09/ SUBM DATE: 01Jun63/

Card 2/2 *Jo*

L 185/9-66 EWT(m)/EWP(t)/EWP(k) JD/HW

ACC NR AP6002187

SOURCE CODE: UR/0146/65/008/006/0161/0165

AUTHOR: Vyallo, A. A.

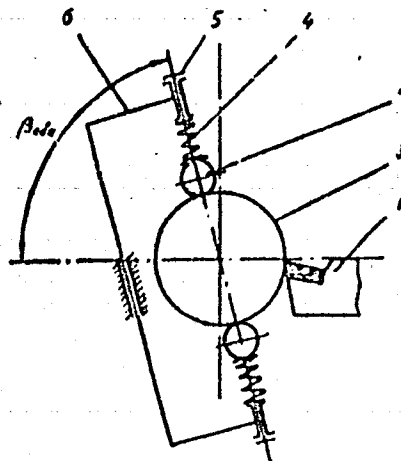
ORG: Leningrad Institute of Fine Mechanics and Optics (Leningradskiy Institut tochnoy mekhaniki i optiki)

TITLE: Investigation of the surface layer of metal simultaneously turned and ball-burnished

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 6, 1965, 161-165

TOPIC TAGS: metal machining, steel microstructure

ABSTRACT: Simultaneous experimental metal turning and ball-burnishing was performed on an engine lathe equipped with two burnishing heads (see figure). The burnishing balls were placed 1-2 mm behind the cutting tool. Steel-20 smooth specimens 25-mm diameter 100-mm long were tested; feed, 0.13 mm/revolution; depth of cut, 0.5 mm; ball diameter, 10 mm. It was found that,



Simultaneous turning and burnishing arrangement

Card 1/2

UDC: 621.787.001.5:621.821

L 18549-66

ACC NR: AP6002187

as the speed increases within 20—60 m/min, the microhardness increases too; then remains constant at speeds 60—120 m/min, and then falls off for both simultaneous and separate turning and burnishing operations. The microhardness increases with the burnishing force up to 68 kg; with greater forces, the microhardness falls off because of work-hardening of the metal surface. The workhardening may be as high as 70% at the surface, yet at a depth of only 0.08 mm the microhardness does not change. The simultaneous turning and burnishing results in a lesser workhardening than the separate operations because of higher work temperature in the first case. The simultaneous turning-burnishing does not change the electric, thermal, or magnetic characteristics of metal. Orig. art. has: 3 figures.

SUB CODE: 13 / SUBM DATE: 05Jan65 / ORIG REF: 004

Card 2/2 *mgs*

L 00599-66 EXT(d)/EWT(m)/EWP(i)/EWA(d)/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b)
AFFTC/RADC MJW/JD

ACCESSION NR: AR5018951

UR/0276/65/000/007/B085/B085
621.941.1-752

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya. Svodnyy tom, Abs. 7B674

AUTHOR: Vyallo, A. A.

TITLE: / Vibration during simultaneous turning and ball burnishing

CITED SOURCE: Tr. Tallinsk. politekhn. in-ta, v. A, no. 216, 1964, 3-10

TOPIC TAGS: machining technology, turning burnishing process, vibration damping method, machine vibration

TRANSLATION: Simultaneous turning and ball burnishing provides continuity in roughing and finishing operations, shortens the machining cycle, and improves productivity. A study of combined turning and ball burnishing was carried out on a screw-cutting machine tool (model 1A616P) with 28 mm rollers of steel #20. Special ball burnishing gear was mounted on the machine tool in place of a detachable blank. It was found that vibration intensity attenuates during combined turning-ball burnishing operations under conditions similar to those present in simple turning operations. The magnitude of burnishing force does not affect the intensity of vibration. Damping is most effective when the burnishing attachment is

Card 1/2

L 00599-66

ACCESSION NR: AR5018951

positioned at an angle of 70 - 80° to the horizontal. A reduction in oscillation frequency during a combined turning-ball burnishing operation is related to an increase in the oscillating mass. Bibl. with 4 titles, 6 illustrations.
E. Dymova

SUB CODE: IE

ENCL: 00

Card 2/2 *DP*

SHNEYDER, Yu.G.; VYALLO, A.A.; TENNISON, G.G.; BUNGA, L.A.

Universal ball burnishers. Stan. i instr. 36 no.8:20-22 Ag '65.
(MIRA 18:9)

L 38728-66 EWT(d)/EWT(m)/EWP(c)/EWP(k)/T/EWP(v)/EWP(t)/EWP(l)/ETI IJP(c) JD/HW

ACC NR: AP6014352

(N)

SOURCE CODE: UR/0121/65/000/012/0023/0026

AUTHOR: Vyallo, A. A.

ORG: None

TITLE: Combined turning and pressure machining of shafts

SOURCE: Stanki i instrument, no. 12, 1965, 23-26

TOPIC TAGS: shaft lathe, metal rolling, metal turning, oscillograph, surface finishing, shaft vibration, *SHAFT*

ABSTRACT: The author presents diagrams and designs of equipment for simultaneously turning and rolling shafts. Data are given for the accuracy of these operations. Surface finish and vibrations resulting from this method are discussed. An experimental study was conducted on the 1A616P screw cutting lathe which was equipped with a special attachment with detachable rollers. The attachment is mounted on the lathe in the place of the follower rest. Results of the study are given in the form of profilograms, distribution curves for diametric dimensions and data tables. Analysis of the experimental data shows that the effect of machining stress on surface roughness is the same for combined and separate turning and rolling. There is less deformation during simultaneous turning and rolling than when these operations are done separately. Combined turning and rolling improves surface finish by 3-4 classes (from the 5th to

Card 1/2

UDC; 621.824.2:621.9.016+621.96/98

L 38728-66

ACC NR: AP6014352

the 8-9th). Thus this operation is recommended for finishing. Oscillograms of work-piece vibration are given. The results show that the accuracy and dimensions of parts machined by the combined method are better than for parts turned and rolled separately. Rolling offsets cutting stresses and eliminates vibrations thus making it possible to machine more flexible shafts than could be done by individual operation. Combined rolling and turning saves time and is highly productive. Orig. art. has: 7 figures, 2 tables, 4 formulas.

SUB CODE. 13/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 000

Card 2/2

L 25982-66 EWT(1) SCTB DD

ACC NR: AP6015094

SOURCE CODE: UR/0391/66/000/005/0039/0043

AUTHOR: Vyalov, A. M.; Lisichkina, Z. S.

ORG: Institute of Hygiene imeni F. F. Erisman (Institut gigiyeny)

TITLE: Characteristics of some clinical and physiological changes in workers exposed to the action of dispersed, constant magnetic fields under industrial and laboratory conditions

SOURCE: Gigiyena truda i professional'noye zabollevaniya, no 5, 1966, 39-43

TOPIC TAGS: magnetic field, biological effect, human physiology, industrial hygiene, central nervous system

ABSTRACT: According to the data compiled by the authors, magnetic field intensity around magnetizing and demagnetizing devices attains 1500 oe under some industrial conditions. The peak intensity affecting the hands of workers can reach 260—1000 oe. During repair work, when the hands are actually placed inside magnetic sources, the intensity can climb to a few thousand oe, while the head, thorax, abdomen, and legs are exposed to 150 oe. In 1961, the Institute of Hygiene imeni Erisman conducted a clinical and physiological study of 90 industrial workers and researchers exposed to the effects of dispersed, constant magnetic fields. The length of service of these subjects ranged from less than three years (first group) to more than three years (second group), and the age ranged from 20—40 years. It was found that during

Card 1/3

UDC: 613.647+617-001.21-057

L 25982-66

ACC NR: AP6015094

3

the first part of the working day, the hands of workers in the first group did not show any changes. At the end of the working day, physiological shifts had appeared in some. The most consistent symptom was cutaneous hyperemia of the hands, especially the right hand. This symptom was noted with equal frequency in both workers and researchers. A study of the local reactivity of subjects by intracutaneous adrenalin-histamine probes revealed a decrease in, and unstable tonus of, sympathetic and parasympathetic innervation in distal parts of the hand. Pain sensitivity was also found to be lowered, especially in the second and third fingers of the right hand. Cardiovascular tests revealed that both industrial workers and researchers experienced altered vascular reactions to exercise and a tendency toward arterial hypotension. Changes in stethoscopic indexes, a tendency towards sinus bradycardia, and EKG changes (elevated T spike and slightly lowered QRS value) were observed less often. Occasionally, nervous system excitability was affected by magnetic fields: one subject periodically suffered from headaches towards the end of and after the working day. Some subjects suffered from unpleasant sensations and pain in the cardiac region, bones, and joints. Others experienced increased fatigability, weakness, disrupted appetite, etc. Examinations revealed elevated knee reflexes, eyelid, and occasionally tongue tremors. An investigation of the oculo-vestibular system by K. A. Dmitriyeva revealed various degrees of depressed and elevated excitability. EEG tests by P. I. Shpil'berg revealed altered mobility of neural processes, and in some cases, a predominant cortical inhibitory process. Electrophoresis of blood samples by L. V. Zhidkova showed some increases in the globulin fraction with a

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L 25982-66

ACC NR: AP6015094

tendency towards an increased albumin-globulin coefficient. These data indicated that dispersed, constant magnetic fields have a definite biological effect on humans even though the exposure intensities are 1—2 times less than those used in animal experiments (5000—10,000 oe). This study therefore dictates that prophylactic measures and improvements should be undertaken around industrial and laboratory sources of magnetic fields. The Institute of Hygiene imeni Erisman has already published "Tentative Methodological Standards" to this end.

SUB CODE: 05, 06/ SUBM DATE: 13Feb65/ ORIG REF: 012/ OTH REF: 003/ ATD PRESS:

[CD]

4256

Card 3/3 FW

SEMENENKO, N.P., akademik, otv. red.; TKACHUK, L.G., doktor geol.-
miner. nauk, zam. otv. red.; VYALOV, O.S., red.; PORFIR'YEV
V.B., red.; SUBBOTIN, S.I., red.; LAZARENKO, Ye.K., red.;
BELEVTSSEV, Ya.N., red.; POPOV, V.S., red.; SOLLOGUB, V.B.,
doktor geol.-miner. nauk, red.; CHEKHOVICH, N.Ya., red.;
BYCHKOVA, R.I., red.

[Materials of the Sixth Congress of the Carpatho-Balkan
Geological Association; reports of the Soviet geologists]
Materialy VI s"ezda Karpato-Balkanskoi geologicheskoi as-
sotsiatsii; doklady sovetskikh geologov. Kiev, Naukova
dumka, 1965. 461 p. (MIRA 18:10)

1. Karpato-Balkanskaya geologicheskaya assotsiatsiya. 6.s"yezd.
2. AN Ukr.SSR (for Semenenko). 3. Chlen-korrespondent AN Ukr.SSR
(for Lazarenko, Belevtsev, Popov).

VYALOV, O.S., prof.

Deep faults and the tectonics of the Carpathians. Geol.sbor.
[Lvov] no.9:21-40 '65. (MIRA 18:12)

SHOSTAKOVSKIY, M.F.; ATAVIN, A.S.; VYALYKH, Ye.P.; TROFIMOV, B.A.

Reaction of the monovinyl ethers of glycols with triethyltin chloride. Zhur. ob. khim. 35 no.4:751 Ap '65.

(MIRA 18:5)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR.

BUKHOVOSTOV, A., spets. red.; VYALKIN, A., red.; KUZIN, N.,
tekhn. red.

[Multiple machining of parts] Gruppovoi metod obrabotki
detalei. Orel, Orlov koe knizhnoe izd-vo, 1963. 48 p.
(MIRA 16:12)

(Metal cutting)

SHTENBERG, Abram Il'ich; GELLER, Grigoriy Moiseyevich; KATSPRZNAK, Yekaterina Fedorovna; VIALKIN, V.I., redaktor; BOLDYREV, T.Ye., professor, redaktor; MOLCHANOVA, O.P., professor, redaktor; SACHEVA, A.I., tekhnicheskiy redaktor.

[Calculation tables on the chemical composition and nutritional value of food products] Raschetnye tablitsy khimicheskogo sostava i pitatel'noi tsennosti pishchevykh produktov. Pod red. T.B.Boldyreva i O.P.Molchanovoi. Moskva, Gos. izd-vo med. lit-ry, 1954. 234 p. (MLBA 8:1)

(Food--Analysis)

COUNTRY	:	USSR	
CATEGORY	:	Forestry. Forest Management	K
ABST. JOUR.	:	RZhMol., No. 2, 1959, No. 6157	
AUTHOR	:	Vyalkov, A.A.	
INST.	:	Bashkir Agric. Inst.	
TITLE	:	Reconstruction of Aspen Underbrush in the Environment of the Dmitriev Training-Experimental Leskhoz.	
ORIG. PUB.	:	Tr. Bashkirska. s.-kh. In-ta, 1957, 8, No.2, 215-223	
ABSTRACT	:	Aspen and linden plantations take up the largest area in the leskhoz. Pseudo-pore fungi have injured 60% of the aspens, and their cultivation is acknowledged as unsuitable. Aspen plantations were reclaimed here by care of the fellings, introduction of valuable varieties into the corridor, pine, larch, and oak plantings on glades in inferior underbrush as well as on fresh clearings after mature growing stocks had been cut, using aspens as the forest-regenerat-	

Card: 1 / 2

V'YALITSYN, A.S. (g.Petropavlovsk, Kazakhskaya SSR)

Conference on atheism in education. Khim. v shkole 15 no.6:82

H-D '60.

(MIRA 13:11)

(Atheism--Congresses)

VITALITSYN, A.S.

Atheistic education of students in physics classes of grade 8.
Fiz. v shkole 19 no.2:35-39 Mr-Apr '59. (MIRA 12:4)

1. Pedagogicheskiy institut, g. Petropavlovsk.
(Atheism)

V'YALITSYN, A.S.

Atheistic education of ninth-grade students in chemistry lessons.
Khim. v shkole 17 no.1:51-57 Ja-F '62. (MIRA 15:1)

1. Pedagogicheskiy institut, g. Petropavlovsk, KazSSR.
(Atheism--Study and teaching)
(Chemistry--Study and teaching)

22(1)

SOV/47-59-2-9/31

AUTHOR: V'yalitsyn, A.S.

TITLE: Students Atheistic Education During Physics Lessons in the 8th Grade (Ateisticheskoye vospitaniye uchashchikhsya na urokakh fiziki v VIII klasse)

PERIODICAL: Fizika v shkole, 1959, Nr 2, pp 35-39 (USSR)

ABSTRACT: The author takes the themes "Rectilinear Uniform Movement", "Inertia", "Composition and Decomposition of Forces", "Force, Mass and Acceleration", "The Law of Gravitation" and the "Law of Conservation and Conversion of Energy" as a basis to develop in 8th grade secondary school students the fundamentals of the dialectic-materialistic outlook. He points out that it is the teacher's principal task to make the students gradually understand the fundamentals of a scientific outlook, and to expose to them the duplicity of religion.

Card 1/2

SOV/47-59-2-9/31

Students Atheistic Education During Physics Lessons in the 8th Grade

There is 1 Soviet reference.

ASSOCIATION: Pedagogicheskiy institut, Petropavlovsk (Pedagogical Institute, Petropavlovsk)

Card 2/2

V'YALITSYN, A.S.

Atheistic education through 8th-grade chemistry lessons. Khim. v shkole 16 no. 3:22-28 My-Je '61. (MIRA 14:5)

1. Pedagogicheskiy institut, g. Petropavlovsk, Kaz. SSR.
(Chemistry—Study and teaching) (Atheism)

KHOKHLOV, V.K.; PRUDNIKOV, I.A.; V'YALITSYN, V.A.; NADYBIN, A.I.

Experimental testing of a model of the bunching section of a
50 Mev. linear electron accelerator. Elektrofiz. . app.
no.2:104-114 '64. (MIRA 18:3)

L 00941-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c)

ACCESSION NR: AT5015936

UR/3092/65/000/003/0037/0045

AUTHOR: V'yalitsyn, V. A.; Nadybin, A. I.; Prudnikov, I. A.; Ryabtsov, A. V.; Smirnov, V. L.; Khokhlov, V. K.

TITLE: Investigation of the accelerating system of a 5-Mev linear accelerator

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury. Elektrofizicheskaya apparatura; sbornik statey, no. 3, 1965, 37-45

TOPIC TAGS: electron accelerator, 5 Mev linear accelerator

ABSTRACT: The results of testing an experimental model of the 5-Mev linear electron accelerator which is intended for beta and gamma therapy are reported. The accelerating system is made in the form of a 2338.3-mm long septate waveguide operating at $\pi/2$ mode. The initial 767-mm long section of the waveguide has variable dimensions so that the phase velocity and field-strength amplitude can be continuously varied to ensure a high capture coefficient. These measured

Card 1/2

L 00941-66

ACCESSION NR: AT5015936

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characteristics are presented: energy and accelerated-beam energy-spectrum width vs. frequency (maximum energy, around 2798.6 Mc); ratio of accelerated-particle current to injection current (capture) vs. frequency (80% corresponds to about 2800 Mc); energy, energy-spectrum width and capture vs. r-f power; same quantities vs. injection current; energy and energy-spectrum width vs. injection current; energy and energy-spectrum width vs. injection voltage. The energy spread of electrons at the spectrum half-height is $\pm 5\%$ or less; the average current of accelerated electrons, 70 μ a. Orig. art. has: 10 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO REF SOV: 002

OTHER: 000

Card 2/2 *DP*

SOV/85-58-10-31/34

AUTHOR: Vyalkin, A. (Orel)

TITLE: Monument to an Outstanding Aircraft Builder (Pamyatnik vydayushchemusya aviakonstruktoru)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 10, p 32 (USSR)

ABSTRACT: The author states that a monument has been erected in memory of Nikolay Nikolayevich Polikarpov, native of Orel, outstanding Soviet aircraft builder, Hero of Socialist Labor and twice Stalin Prize winner. His planes Po-2, I-16 and I-153, and others earned wide acclaim. The monument was designed by sculptor G.I. Kiyyenov. There is 1 photograph of the statue.

Card 1/1